

# Advanced Lightweight Metal Matrix Composite Segmented Optic Manufacture, Phase I

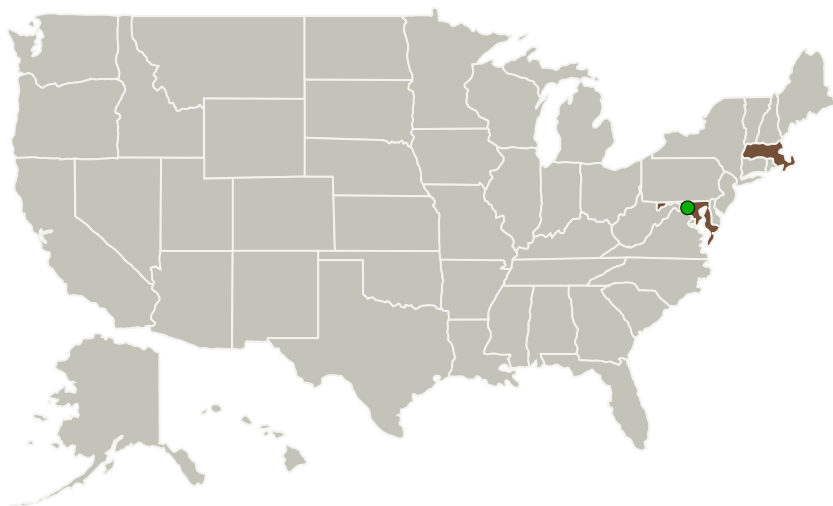
Completed Technology Project (2010 - 2010)



## Project Introduction

Design, manufacture and test a flat segmented mirror made of optical grade AlBeMet 162 material and fusion bonded through the use of E Beam welding to demonstrate the feasibility of manufacturing much larger segmented optics that perform as monolithic optics.


## Primary U.S. Work Locations and Key Partners



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Organizations Performing Work	Role	Type	Location
Hardric Laboratories, Inc.	Lead Organization	Industry	North Chelmsford, Massachusetts
 Goddard Space Flight Center(GSFC)	Supporting Organization	NASA Center	Greenbelt, Maryland

### Primary U.S. Work Locations

Maryland	Massachusetts
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## Project Transitions



**January 2010:** Project Start



**July 2010:** Closed out

### Closeout Documentation:

- Final Summary Chart(<https://techport.nasa.gov/file/138783>)

## Organizational Responsibility

### Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

### Lead Organization:

Hardric Laboratories, Inc.

### Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

## Project Management

### Program Director:

Jason L Kessler

### Program Manager:

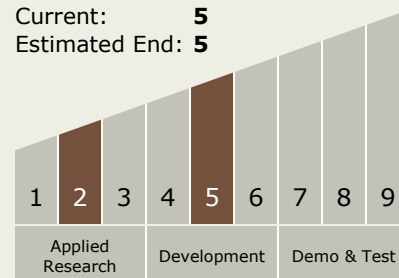
Carlos Torrez

### Principal Investigator:

Michael Kornik

## Technology Maturity (TRL)

Start: 2  
Current: 5  
Estimated End: 5



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## Technology Areas

### Primary:

- TX08 Sensors and Instruments
  - └ TX08.2 Observatories
    - └ TX08.2.1 Mirror Systems

## Target Destinations

The Moon, Mars, Outside the Solar System, The Sun, Earth, Others Inside the Solar System